

(FILE 'HOME' ENTERED AT 22:53:03 ON 08 JUL 2004)

FILE 'REGISTRY' ENTERED AT 22:53:09 ON 08 JUL 2004

L1               STRUCTURE UPLOADED  
L2               STRUCTURE UPLOADED  
L3               STRUCTURE UPLOADED  
L4           129 S L1 FULL  
L5           80 S L2 FULL  
L6           528 S L3 FULL

FILE 'CAPLUS' ENTERED AT 22:54:25 ON 08 JUL 2004

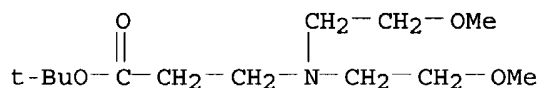
L7           34909 S PHOTORESIST OR RESIST COMPOSITION  
L8           4 S L4 AND L7  
L9           2 S L5 AND L7  
L10          4 S L6 AND L7  
L11          2 S L8 NOT L9  
L12          0 S L9 NOT L8

=> s l10 not l8

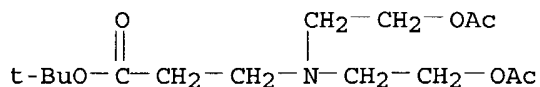
L13          0 L10 NOT L8

L8 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2004 ACS on STN  
 AN 2002:955415 CAPLUS  
 DN 138:47300  
 TI Nitrogen-containing basic compound, resist material, and method of patterning  
 IN Hatakeyama, Jun; Watanabe, Takeshi; Nagata, Takashi; Maeda, Kazuki; Nishi, Tsunehiro  
 PA Shin-Etsu Chemical Industry Co., Ltd., Japan  
 SO Jpn. Kokai Tokkyo Koho, 30 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI	JP 2002363148	A2	20021218	JP 2001-164044	20010531
PRAI	JP 2001-164044		20010531		
OS	MARPAT 138:47300				
AB	The N-containing basic compound is represented by (R2)bN(R1COOCRpRqRr)a (R1 = C1-4 alkylene; R2 = H, C1-20 alkyl; Rp, Rq, Rr = C1-20 hydrocarbon which may form ring; a = 1, 2, 3; b = 0, 1, 2; and a + b = 3). The resist material containing the basic compound is also claimed. The patterning process using a high energy ray $\leq 300$ nm or an electron beam is also claimed. An addition of the basic compound in the resist material provided a broader focus margin and a high contrast.				
IT	<b>478407-85-1P 478407-88-4P</b> RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (nitrogen-containing basic compound for resist material)				
RN	478407-85-1 CAPLUS				
CN	$\beta$ -Alanine, N,N-bis(2-methoxyethyl)-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)				



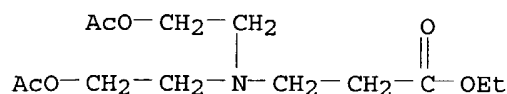
RN 478407-88-4 CAPLUS  
 CN  $\beta$ -Alanine, N,N-bis[2-(acetyloxy)ethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



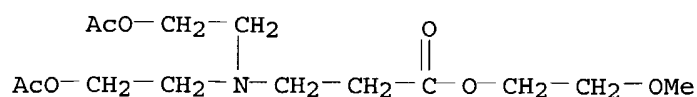
L8 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2004 ACS on STN  
 AN 2002:831831 CAPLUS  
 DN 137:325160  
 TI Preparation of novel tertiary amine compounds having an ester structure as additives for chemical amplification resists  
 IN Watanabe, Takeru; Hasegawa, Koji; Kinsho, Takeshi; Hatakeyama, Jun  
 PA Shin-Etsu Chemical Co., Ltd., Japan  
 SO Eur. Pat. Appl., 31 pp.  
 CODEN: EPXXDW  
 DT Patent  
 LA English  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI EP 1253138 A2 20021030 EP 2002-252827 20020423  
 EP 1253138 A3 20030924  
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  
 IE, SI, LT, LV, FI, RO, MK, CY, AL, TR  
 US 2002193622 A1 20021219 US 2002-127120 20020422  
 JP 2003012621 A2 20030115 JP 2002-120468 20020423  
 PRAI JP 2001-123927 A 20010423  
 OS MARPAT 137:325160  
 AB The invention provides novel and useful ester group-containing tertiary amine  
 compds. (R1OCH2CH2)nN(CH2CH2CO2R2)3-n [n is 1 or 2; R1, R2 = (cyclo)alkyl  
 groups which may contain an ether, carbonyl or carbonyloxy group] which,  
 when used as additives in chemical amplification photolithog., can yield  
 photoresists having a high resolution and an excellent focus margin. Thus, a  
 mixture of 10.5 g each Et acrylate and diethanolamine was allowed to stand  
 20 h at 20-30 °C, 25.6 g triethylamine, 100 mg 4-  
 dimethylaminopyridine, 100 g THF, and 22.4 g of acetic anhydride were  
 added and the mixture stirred for 10 h to afford 95 %  
 (AcOCH2CH2)NCH2CH2CO2Et. The photoresists prepared by adding the ester  
 group-containing tertiary amine compds. of the invention have a much wider  
 focus margin, as compared with conventional photoresists.  
 IT 350684-62-7P 350684-66-1P 350684-69-4P  
 350684-73-0P 350684-75-2P 350684-79-6P  
 350684-80-9P 350684-81-0P 473713-58-5P  
 473713-59-6P 473713-60-9P 473713-61-0P  
 473713-62-1P 473713-64-3P 473713-65-4P  
 473713-67-6P 473713-68-7P 473713-69-8P  
 473713-70-1P 473713-71-2P 473713-72-3P  
 473713-73-4P 473713-74-5P 473713-75-6P  
 473713-76-7P 473713-77-8P 473713-78-9P  
 473713-79-0P 473713-80-3P 473713-81-4P  
 473713-82-5P 473713-83-6P 473713-84-7P  
 473713-85-8P 473713-86-9P 473713-87-0P  
 473713-89-2P 473713-90-5P 473713-91-6P  
 473713-92-7P 473713-93-8P 473713-94-9P  
 473713-95-0P 473713-96-1P 473713-97-2P  
 473713-98-3P 473713-99-4P 473714-00-0P  
 473714-01-1P 473714-02-2P 473714-25-9P  
 RL: MOA (Modifier or additive use); SPN (Synthetic preparation); PREP  
 (Preparation); USES (Uses)  
 (preparation of acrylate-(di)ethanolamine adducts as additives for chemical  
 amplification resists)  
 RN 350684-62-7 CAPLUS  
 CN β-Alanine, N,N-bis[2-(acetyloxy)ethyl]-, ethyl ester (9CI) (CA INDEX  
 NAME)

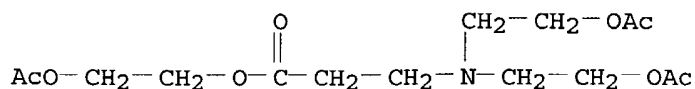


RN 350684-66-1 CAPLUS  
 CN β-Alanine, N,N-bis[2-(acetyloxy)ethyl]-, 2-methoxyethyl ester (9CI)  
 (CA INDEX NAME)



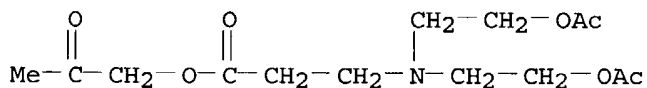
RN 350684-69-4 CAPLUS  
 CN β-Alanine, N,N-bis[2-(acetyloxy)ethyl]-, 2-(acetyloxy)ethyl ester

(9CI) (CA INDEX NAME)



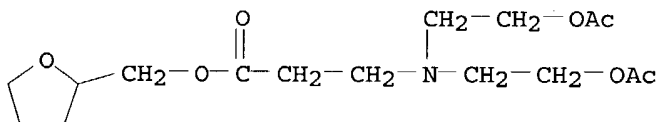
RN 350684-73-0 CAPLUS

CN  $\beta$ -Alanine, N,N-bis[2-(acetyloxy)ethyl]-, 2-oxopropyl ester (9CI) (CA INDEX NAME)



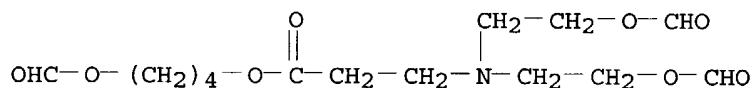
RN 350684-75-2 CAPLUS

CN  $\beta$ -Alanine, N,N-bis[2-(acetyloxy)ethyl]-, (tetrahydro-2-furanyl)methyl ester (9CI) (CA INDEX NAME)



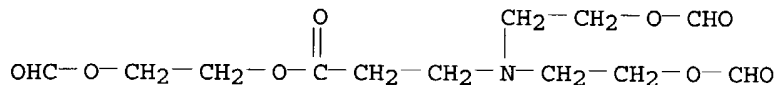
RN 350684-79-6 CAPLUS

CN  $\beta$ -Alanine, N,N-bis[2-(formyloxy)ethyl]-, 4-(formyloxy)butyl ester (9CI) (CA INDEX NAME)



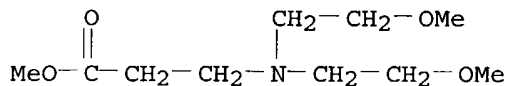
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CN  $\beta$ -Alanine, N,N-bis[2-(formyloxy)ethyl]-, 2-(formyloxy)ethyl ester (9CI) (CA INDEX NAME)



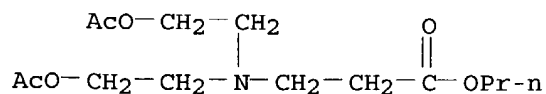
RN 350684-81-0 CAPLUS

CN  $\beta$ -Alanine, N,N-bis(2-methoxyethyl)-, methyl ester (9CI) (CA INDEX NAME)

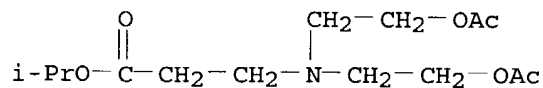


RN 473713-58-5 CAPLUS

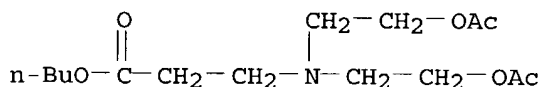
CN  $\beta$ -Alanine, N,N-bis[2-(acetyloxy)ethyl]-, propyl ester (9CI) (CA INDEX NAME)



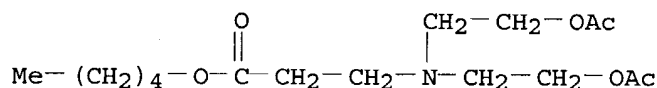
RN 473713-59-6 CAPLUS  
CN  $\beta$ -Alanine, N,N-bis[2-(acetyloxy)ethyl]-, 1-methylethyl ester (9CI)  
(CA INDEX NAME)



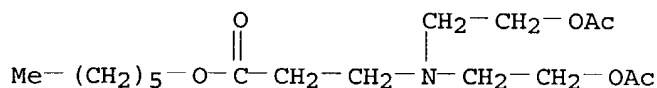
RN 473713-60-9 CAPLUS  
CN  $\beta$ -Alanine, N,N-bis[2-(acetyloxy)ethyl]-, butyl ester (9CI) (CA INDEX NAME)



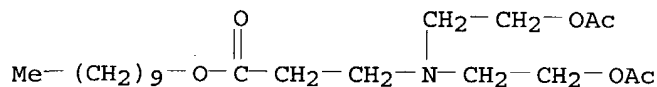
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CN  $\beta$ -Alanine, N,N-bis[2-(acetyloxy)ethyl]-, pentyl ester (9CI) (CA INDEX NAME)



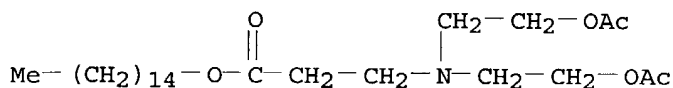
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CN  $\beta$ -Alanine, N,N-bis[2-(acetyloxy)ethyl]-, hexyl ester (9CI) (CA INDEX NAME)



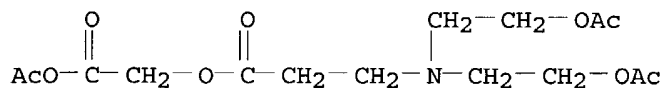
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CN  $\beta$ -Alanine, N,N-bis[2-(acetyloxy)ethyl]-, decyl ester (9CI) (CA INDEX NAME)



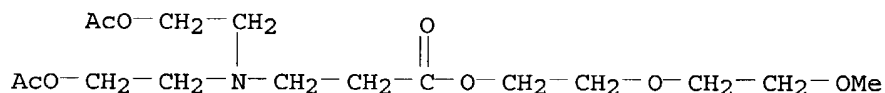
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CN  $\beta$ -Alanine, N,N-bis[2-(acetyloxy)ethyl]-, pentadecyl ester (9CI) (CA INDEX NAME)



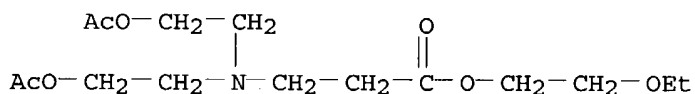
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 CN  $\beta$ -Alanine, N,N-bis[2-(acetyloxy)ethyl]-, 2-(acetyloxy)-2-oxoethyl ester (9CI) (CA INDEX NAME)



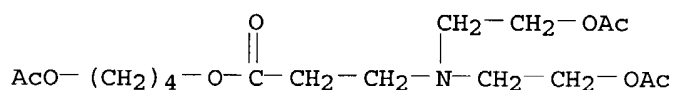
RN 473713-68-7 CAPLUS  
 CN  $\beta$ -Alanine, N,N-bis[2-(acetyloxy)ethyl]-, 2-(2-methoxyethoxy)ethyl ester (9CI) (CA INDEX NAME)



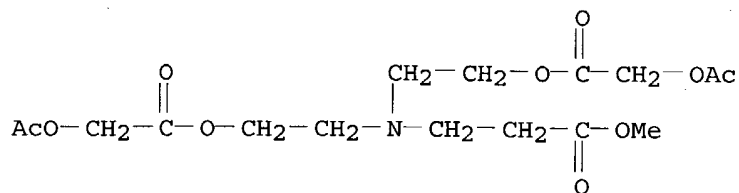
RN 473713-69-8 CAPLUS  
 CN  $\beta$ -Alanine, N,N-bis[2-(acetyloxy)ethyl]-, 2-ethoxyethyl ester (9CI) (CA INDEX NAME)



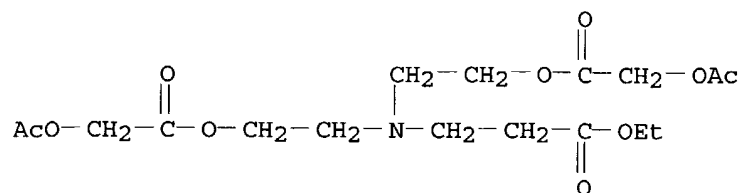
RN 473713-70-1 CAPLUS  
 CN  $\beta$ -Alanine, N,N-bis[2-(acetyloxy)ethyl]-, 4-(acetyloxy)butyl ester (9CI) (CA INDEX NAME)



RN 473713-71-2 CAPLUS  
 CN  $\beta$ -Alanine, N,N-bis[2-[[ (acetyloxy)acetyl]oxy]ethyl]-, methyl ester (9CI) (CA INDEX NAME)

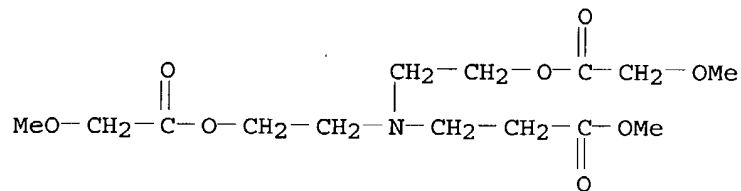


RN 473713-72-3 CAPLUS  
 CN  $\beta$ -Alanine, N,N-bis[2-[[ (acetyloxy)acetyl]oxy]ethyl]-, ethyl ester (9CI) (CA INDEX NAME)



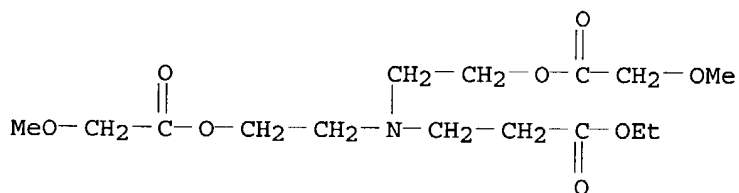
RN 473713-73-4 CAPLUS

CN  $\beta$ -Alanine, N,N-bis[2-[(methoxyacetyl)oxy]ethyl]-, methyl ester (9CI)  
(CA INDEX NAME)



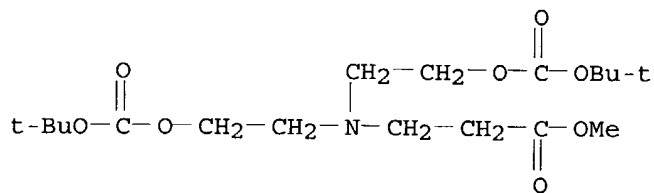
RN 473713-74-5 CAPLUS

CN  $\beta$ -Alanine, N,N-bis[2-[(methoxyacetyl)oxy]ethyl]-, ethyl ester (9CI)  
(CA INDEX NAME)



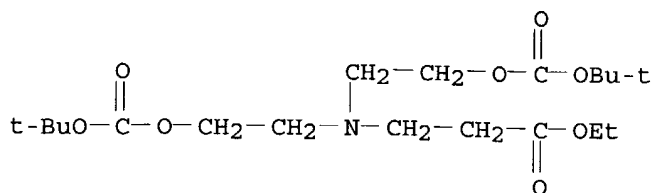
RN 473713-75-6 CAPLUS

CN 2,8,10-Trioxa-5-azadodecanoic acid, 5-(3-methoxy-3-oxopropyl)-11,11-dimethyl-9-oxo-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

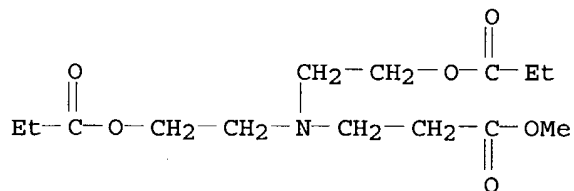


RN 473713-76-7 CAPLUS

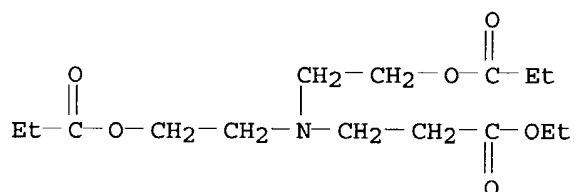
CN 2,8,10-Trioxa-5-azadodecanoic acid, 5-(3-ethoxy-3-oxopropyl)-11,11-dimethyl-9-oxo-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



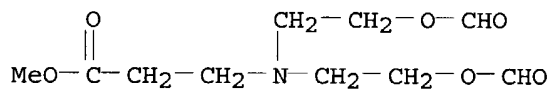
RN 473713-77-8 CAPLUS  
 CN  $\beta$ -Alanine, N,N-bis[2-(1-oxopropoxy)ethyl]-, methyl ester (9CI) (CA INDEX NAME)



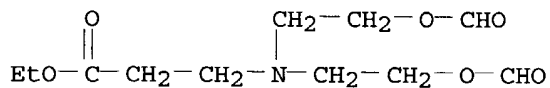
RN 473713-78-9 CAPLUS  
 CN  $\beta$ -Alanine, N,N-bis[2-(1-oxopropoxy)ethyl]-, ethyl ester (9CI) (CA INDEX NAME)



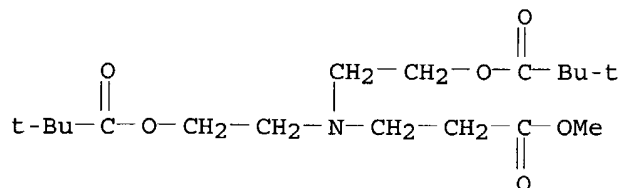
RN 473713-79-0 CAPLUS  
 CN  $\beta$ -Alanine, N,N-bis[2-(formyloxy)ethyl]-, methyl ester (9CI) (CA INDEX NAME)



RN 473713-80-3 CAPLUS  
 CN  $\beta$ -Alanine, N,N-bis[2-(formyloxy)ethyl]-, ethyl ester (9CI) (CA INDEX NAME)



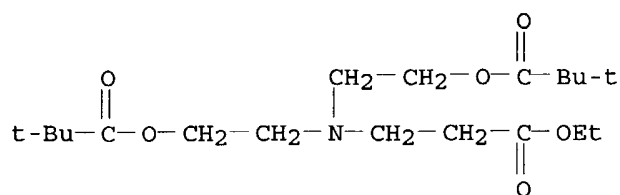
RN 473713-81-4 CAPLUS  
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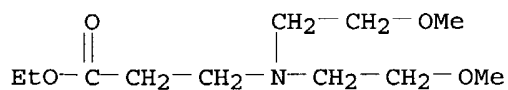
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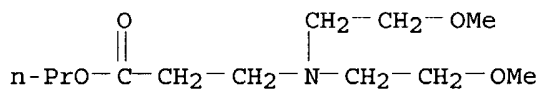
(9CI) (CA INDEX NAME)



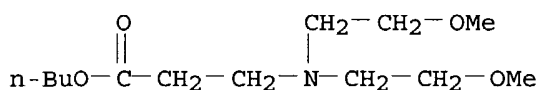
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CN  $\beta$ -Alanine, N,N-bis(2-methoxyethyl)-, ethyl ester (9CI) (CA INDEX NAME)



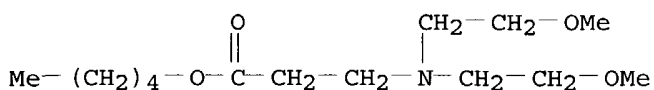
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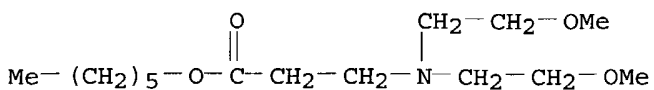
RN 473713-85-8 CAPLUS  
CN  $\beta$ -Alanine, N,N-bis(2-methoxyethyl)-, butyl ester (9CI) (CA INDEX NAME)



RN 473713-86-9 CAPLUS  
CN  $\beta$ -Alanine, N,N-bis(2-methoxyethyl)-, pentyl ester (9CI) (CA INDEX NAME)

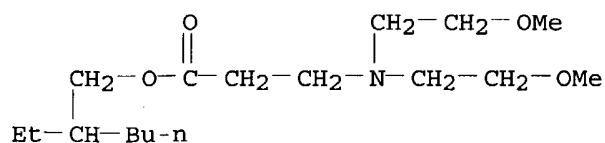


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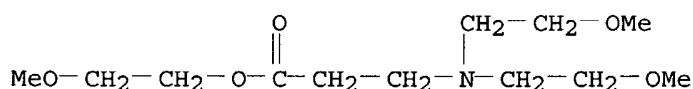
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CN  $\beta$ -Alanine, N,N-bis(2-methoxyethyl)-, 2-ethylhexyl ester (9CI) (CA INDEX NAME)

INDEX NAME)



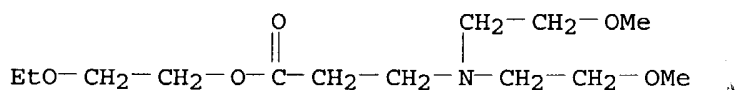
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CN  $\beta$ -Alanine, N,N-bis(2-methoxyethyl)-, 2-methoxyethyl ester (9CI) (CA INDEX NAME)



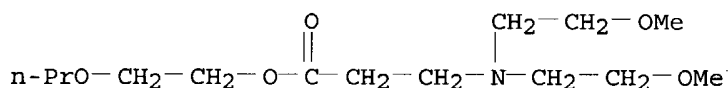
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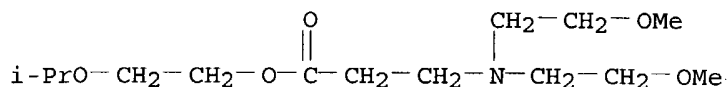
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CN  $\beta$ -Alanine, N,N-bis(2-methoxyethyl)-, 2-propoxyethyl ester (9CI) (CA INDEX NAME)



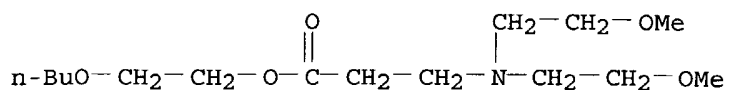
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CN  $\beta$ -Alanine, N,N-bis(2-methoxyethyl)-, 2-(1-methylethoxy)ethyl ester (9CI) (CA INDEX NAME)



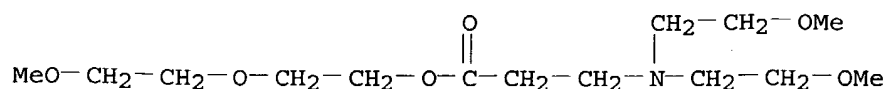
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CN  $\beta$ -Alanine, N,N-bis(2-methoxyethyl)-, 2-butoxyethyl ester (9CI) (CA INDEX NAME)



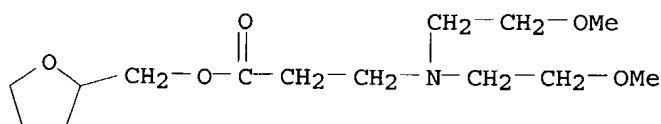
RN 473713-95-0 CAPLUS

CN  $\beta$ -Alanine, N,N-bis(2-methoxyethyl)-, 2-(2-methoxyethoxy)ethyl ester (9CI) (CA INDEX NAME)



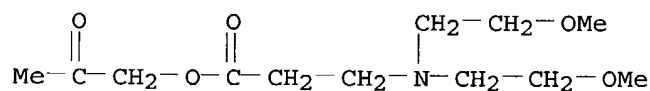
RN 473713-96-1 CAPLUS

CN  $\beta$ -Alanine, N,N-bis(2-methoxyethyl)-, (tetrahydro-2-furanyl)methyl ester (9CI) (CA INDEX NAME)



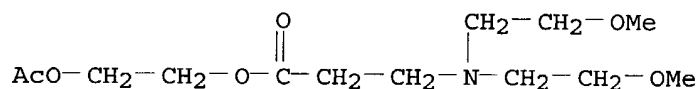
RN 473713-97-2 CAPLUS

CN  $\beta$ -Alanine, N,N-bis(2-methoxyethyl)-, 2-oxopropyl ester (9CI) (CA INDEX NAME)



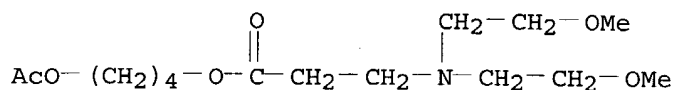
RN 473713-98-3 CAPLUS

CN  $\beta$ -Alanine, N,N-bis(2-methoxyethyl)-, 2-(acetyloxy)ethyl ester (9CI) (CA INDEX NAME)



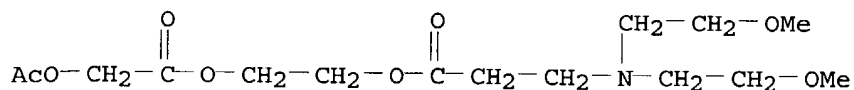
RN 473713-99-4 CAPLUS

CN  $\beta$ -Alanine, N,N-bis(2-methoxyethyl)-, 4-(acetyloxy)butyl ester (9CI) (CA INDEX NAME)



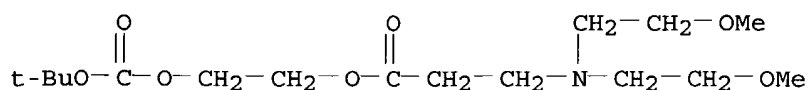
RN 473714-00-0 CAPLUS

CN  $\beta$ -Alanine, N,N-bis(2-methoxyethyl)-, 2-[[[(acetyloxy)acetyl]oxy]ethyl ester (9CI) (CA INDEX NAME)

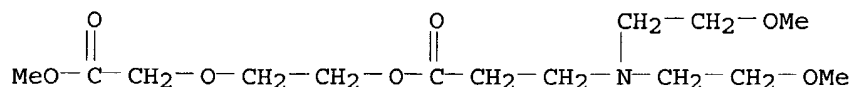


RN 473714-01-1 CAPLUS

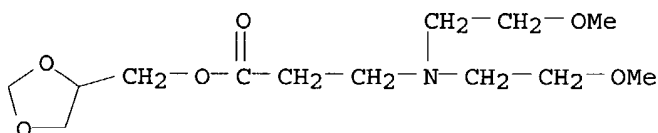
CN  $\beta$ -Alanine, N,N-bis(2-methoxyethyl)-, 2-[[[(1,1-dimethylethoxy)carbonyl]oxy]ethyl ester (9CI) (CA INDEX NAME)



RN 473714-02-2 CAPLUS  
 CN β-Alanine, N,N-bis(2-methoxyethyl)-, 2-(2-methoxy-2-oxoethoxy)ethyl ester (9CI) (CA INDEX NAME)



RN 473714-25-9 CAPLUS  
 CN β-Alanine, N,N-bis(2-methoxyethyl)-, 1,3-dioxolan-4-ylmethyl ester (9CI) (CA INDEX NAME)



L8 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2004 ACS on STN  
 AN 2002:638186 CAPLUS  
 DN 137:192762  
 TI Amine compounds, resist compositions and patterning process  
 IN Hatakeyama, Jun; Kobayashi, Tomohiro; Watanabe, Takeru  
 PA Shin-Etsu Chemical Co., Ltd., Japan  
 SO U.S. Pat. Appl. Publ., 40 pp.  
 CODEN: USXXCO  
 DT Patent  
 LA English  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2002115018	A1	20020822	US 2001-3288	20011206
	US 6743564	B2	20040601		
	JP 2002249478	A2	20020906	JP 2001-369719	20011204
PRAI	JP 2000-373316	A	20001207		

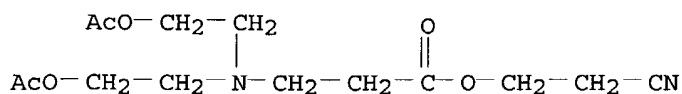
OS MARPAT 137:192762

AB Amine compds. having a cyano group are useful in resist compns. for preventing a resist film from thinning and also for enhancing the resolution and focus margin of resist. The invention amine compds. have general formulas: (R2)b-N-(R1-CN)a; I; (R2)b-N-(R1C(=O)OR4-CN)a; II (R1,4 = C1-4 alkylene; R2 = C1-20 cycloc alkyl which may contain a hydroxy group, ether, carbonyl, ester, lactone ring, carbonate, cyano group; R3 = C2-20 alkylene which may contain hydroxy, ether, thioether, carbonyl, ester, thioester group, carbonate; a = 1-3; a+b = 3).

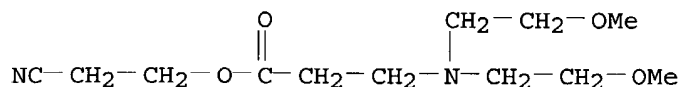
IT 449165-74-6P 449165-79-1P

RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (amine compds. and **photoresist** compns. for patterning process)

RN 449165-74-6 CAPLUS  
 CN β-Alanine, N,N-bis[2-(acetyloxy)ethyl]-, 2-cyanoethyl ester (9CI) (CA INDEX NAME)

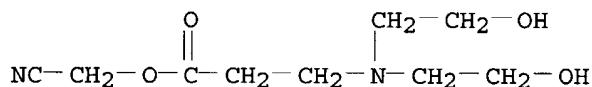


RN 449165-79-1 CAPLUS  
CN  $\beta$ -Alanine, N,N-bis(2-methoxyethyl)-, 2-cyanoethyl ester (9CI) (CA INDEX NAME)

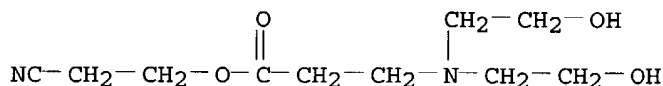


IT 449165-61-1P 449165-71-3P  
RL: RCT (Reactant); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)  
(amine compds. and **photoresist** compns. for patterning process)

RN 449165-61-1 CAPLUS  
CN  $\beta$ -Alanine, N,N-bis(2-hydroxyethyl)-, cyanomethyl ester (9CI) (CA INDEX NAME)

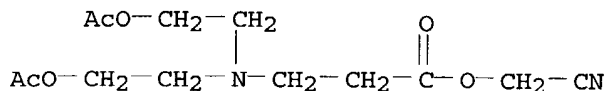


RN 449165-71-3 CAPLUS  
CN  $\beta$ -Alanine, N,N-bis(2-hydroxyethyl)-, 2-cyanoethyl ester (9CI) (CA INDEX NAME)

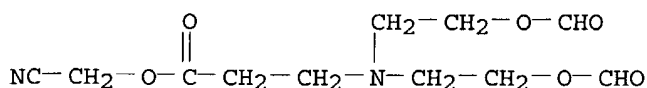


IT 449165-62-2P 449165-63-3P 449165-66-6P  
449165-67-7P 449165-77-9P 449165-81-5P  
RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(amine compds. and **photoresist** compns. for patterning process)

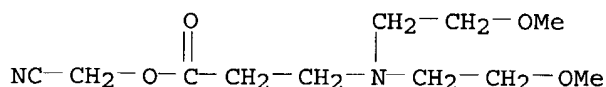
RN 449165-62-2 CAPLUS  
CN  $\beta$ -Alanine, N,N-bis[2-(acetyloxy)ethyl]-, cyanomethyl ester (9CI) (CA INDEX NAME)



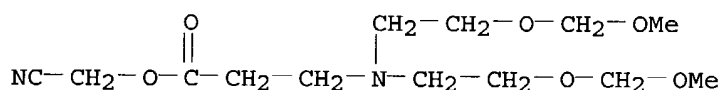
RN 449165-63-3 CAPLUS  
CN  $\beta$ -Alanine, N,N-bis[2-(formyloxy)ethyl]-, cyanomethyl ester (9CI) (CA INDEX NAME)



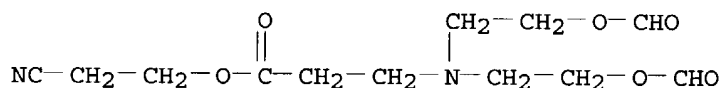
RN 449165-66-6 CAPLUS  
 CN  $\beta$ -Alanine, N,N-bis(2-methoxyethyl)-, cyanomethyl ester (9CI) (CA INDEX NAME)



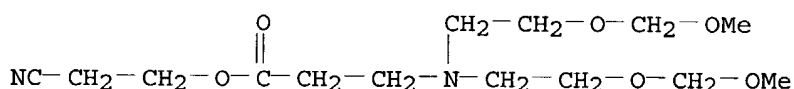
RN 449165-67-7 CAPLUS  
 CN  $\beta$ -Alanine, N,N-bis[2-(methoxymethoxy)ethyl]-, cyanomethyl ester (9CI) (CA INDEX NAME)



RN 449165-77-9 CAPLUS  
 CN  $\beta$ -Alanine, N,N-bis[2-(formyloxy)ethyl]-, 2-cyanoethyl ester (9CI) (CA INDEX NAME)



RN 449165-81-5 CAPLUS  
 CN  $\beta$ -Alanine, N,N-bis[2-(methoxymethoxy)ethyl]-, 2-cyanoethyl ester (9CI) (CA INDEX NAME)



L8 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2004 ACS on STN  
 AN 2001:523645 CAPLUS  
 DN 135:129564  
 TI Chemically amplified **resist composition** containing amine derivative having carbonyl group, ester group, or carbonate group  
 IN Hatakeyama, Jun; Osawa, Yoichi; Watanabe, Takeshi  
 PA Shin-Etsu Chemical Industry Co., Ltd., Japan  
 SO Jpn. Kokai Tokkyo Koho, 37 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2001194776	A2	20010719	JP 2000-328131	20001027
	US 6673511	B1	20040106	US 2000-697921	20001027
	US 2004106063	A1	20040603	US 2003-615683	20030709
PRAI	JP 1999-308496	A	19991029		

*my parent*

US 2000-697921 A3 20001027

OS MARPAT 135:129564

AB The chemical amplified resist composition contains amine compound N(X)n(Y)3-n  
(n =

1-3, integer; X = -R1-O-R2-, -R1-C(=O)-O-R61; R1 = C1-5 alkylene; R2 = C1-20 alkyl containing carbonyl or ester group; R61 = carbonyl, ester, ether, etc.; Y = H, C1-20 alkyl). The composition, which contains the aforementioned amine having carbonyl group, ester group, or carbonate group, generates little post exposure delay (PED) problem and provides the good acid diffusion control.

IT 58285-88-4

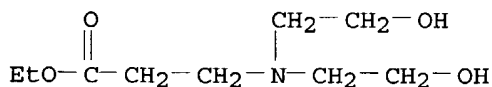
RL: RCT (Reactant); RACT (Reactant or reagent)

(chemical amplified resist composition containing amine having carbonyl group,

ester group, or carbonate group)

RN 58285-88-4 CAPLUS

CN  $\beta$ -Alanine, N,N-bis(2-hydroxyethyl)-, ethyl ester (9CI) (CA INDEX NAME)



IT 117789-12-5P 118480-08-3P 350684-62-7P

350684-64-9P 350684-66-1P 350684-68-3P

350684-69-4P 350684-70-7P 350684-71-8P

350684-72-9P 350684-73-0P 350684-74-1P

350684-75-2P 350684-78-5P 350684-79-6P

350684-80-9P 350684-81-0P

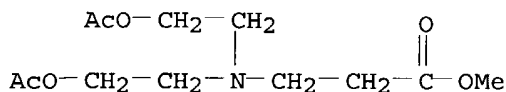
RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(chemical amplified resist composition containing amine having carbonyl group,

ester group, or carbonate group)

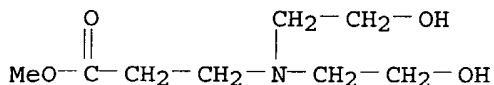
RN 117789-12-5 CAPLUS

CN  $\beta$ -Alanine, N,N-bis[2-(acetyloxy)ethyl]-, methyl ester (9CI) (CA INDEX NAME)



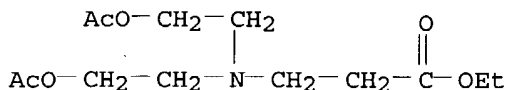
RN 118480-08-3 CAPLUS

CN  $\beta$ -Alanine, N,N-bis(2-hydroxyethyl)-, methyl ester (9CI) (CA INDEX NAME)

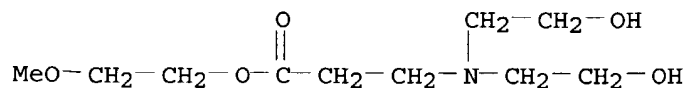


RN 350684-62-7 CAPLUS

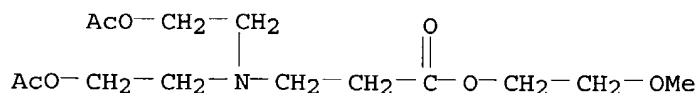
CN  $\beta$ -Alanine, N,N-bis[2-(acetyloxy)ethyl]-, ethyl ester (9CI) (CA INDEX NAME)



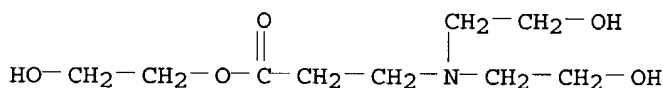
RN 350684-64-9 CAPLUS  
 CN  $\beta$ -Alanine, N,N-bis(2-hydroxyethyl)-, 2-methoxyethyl ester (9CI) (CA INDEX NAME)



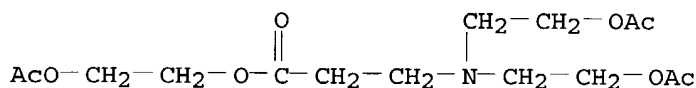
RN 350684-66-1 CAPLUS  
 CN  $\beta$ -Alanine, N,N-bis[2-(acetyloxy)ethyl]-, 2-methoxyethyl ester (9CI) (CA INDEX NAME)



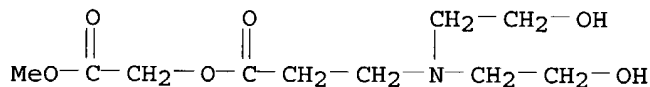
RN 350684-68-3 CAPLUS  
 CN  $\beta$ -Alanine, N,N-bis(2-hydroxyethyl)-, 2-hydroxyethyl ester (9CI) (CA INDEX NAME)



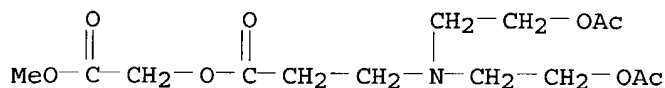
RN 350684-69-4 CAPLUS  
 CN  $\beta$ -Alanine, N,N-bis[2-(acetyloxy)ethyl]-, 2-(acetyloxy)ethyl ester (9CI) (CA INDEX NAME)



RN 350684-70-7 CAPLUS  
 CN  $\beta$ -Alanine, N,N-bis(2-hydroxyethyl)-, 2-methoxy-2-oxoethyl ester (9CI) (CA INDEX NAME)

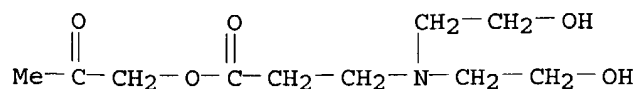


RN 350684-71-8 CAPLUS  
 CN  $\beta$ -Alanine, N,N-bis[2-(acetyloxy)ethyl]-, 2-methoxy-2-oxoethyl ester (9CI) (CA INDEX NAME)



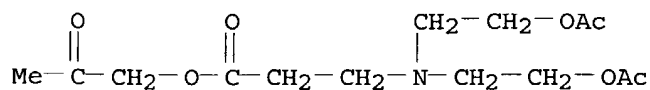
RN 350684-72-9 CAPLUS  
 CN  $\beta$ -Alanine, N,N-bis(2-hydroxyethyl)-, 2-oxopropyl ester (9CI) (CA INDEX NAME)





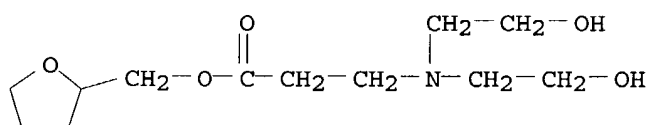
RN 350684-73-0 CAPLUS

CN  $\beta$ -Alanine, N,N-bis[2-(acetyloxy)ethyl]-, 2-oxopropyl ester (9CI) (CA INDEX NAME)



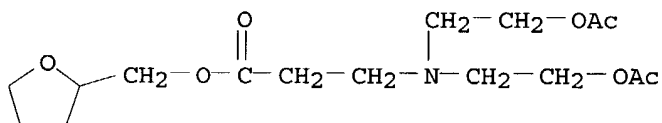
RN 350684-74-1 CAPLUS

CN  $\beta$ -Alanine, N,N-bis(2-hydroxyethyl)-, (tetrahydro-2-furanyl)methyl ester (9CI) (CA INDEX NAME)



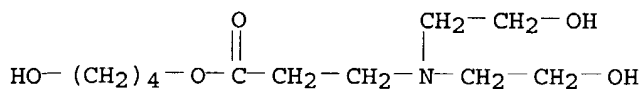
RN 350684-75-2 CAPLUS

CN  $\beta$ -Alanine, N,N-bis[2-(acetyloxy)ethyl]-, (tetrahydro-2-furanyl)methyl ester (9CI) (CA INDEX NAME)



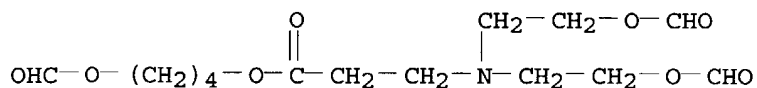
RN 350684-78-5 CAPLUS

CN  $\beta$ -Alanine, N,N-bis(2-hydroxyethyl)-, 4-hydroxybutyl ester (9CI) (CA INDEX NAME)



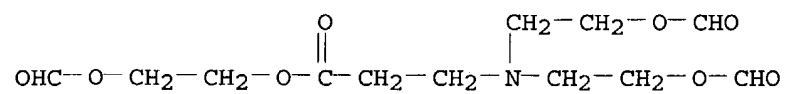
RN 350684-79-6 CAPLUS

CN  $\beta$ -Alanine, N,N-bis[2-(formyloxy)ethyl]-, 4-(formyloxy)butyl ester (9CI) (CA INDEX NAME)



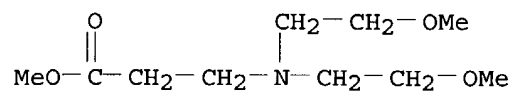
RN 350684-80-9 CAPLUS

CN  $\beta$ -Alanine, N,N-bis[2-(formyloxy)ethyl]-, 2-(formyloxy)ethyl ester (9CI) (CA INDEX NAME)



RN 350684-81-0 CAPLUS

CN  $\beta$ -Alanine, N,N-bis(2-methoxyethyl)-, methyl ester (9CI) (CA INDEX NAME)



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L9 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2004 ACS on STN  
 AN 2002:831831 CAPLUS  
 DN 137:325160  
 TI Preparation of novel tertiary amine compounds having an ester structure as additives for chemical amplification resists  
 IN Watanabe, Takeru; Hasegawa, Koji; Kinsho, Takeshi; Hatakeyama, Jun  
 PA Shin-Etsu Chemical Co., Ltd., Japan  
 SO Eur. Pat. Appl., 31 pp.  
 CODEN: EPXXDW  
 DT Patent  
 LA English  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 1253138	A2	20021030	EP 2002-252827	20020423
	EP 1253138	A3	20030924		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
	US 2002193622	A1	20021219	US 2002-127120	20020422
	JP 2003012621	A2	20030115	JP 2002-120468	20020423
PRAI	JP 2001-123927	A	20010423		
OS	MARPAT 137:325160				

L9 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2004 ACS on STN  
 AN 2001:523645 CAPLUS  
 DN 135:129564  
 TI Chemically amplified **resist composition** containing amine derivative having carbonyl group, ester group, or carbonate group  
 IN Hatakeyama, Jun; Osawa, Yoichi; Watanabe, Takeshi  
 PA Shin-Etsu Chemical Industry Co., Ltd., Japan  
 SO Jpn. Kokai Tokkyo Koho, 37 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2001194776	A2	20010719	JP 2000-328131	20001027
	US 6673511	B1	20040106	US 2000-697921	20001027
	US 2004106063	A1	20040603	US 2003-615683	20030709
PRAI	JP 1999-308496	A	19991029		
	US 2000-697921	A3	20001027		
OS	MARPAT 135:129564				

=>

L9 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2004 ACS on STN

AN 2002:831831 CAPLUS

DN 137:325160

TI Preparation of novel tertiary amine compounds having an ester structure as additives for chemical amplification resists

IN Watanabe, Takeru; Hasegawa, Koji; Kinsho, Takeshi; Hatakeyama, Jun

PA Shin-Etsu Chemical Co., Ltd., Japan

SO Eur. Pat. Appl., 31 pp.

CODEN: EPXXDW

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 1253138	A2	20021030	EP 2002-252827	20020423
	EP 1253138	A3	20030924		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
	US 2002193622	A1	20021219	US 2002-127120	20020422
	JP 2003012621	A2	20030115	JP 2002-120468	20020423
PRAI	JP 2001-123927	A	20010423		

OS MARPAT 137:325160

AB The invention provides novel and useful ester group-containing tertiary amine compds. (R1OCH2CH2)nN(CH2CH2CO2R2)3-n [n is 1 or 2; R1, R2 = (cyclo)alkyl groups which may contain an ether, carbonyl or carbonyloxy group] which, when used as additives in chemical amplification photolithog., can yield photoresists having a high resolution and an excellent focus margin. Thus, a mixture of 10.5 g each Et acrylate and diethanolamine was allowed to stand 20 h at 20-30 °C, 25.6 g triethylamine, 100 mg 4-dimethylaminopyridine, 100 g THF, and 22.4 g of acetic anhydride were added and the mixture stirred for 10 h to afford 95 % (AcOCH2CH2)NCH2CH2CO2Et. The photoresists prepared by adding the ester group-containing tertiary amine compds. of the invention have a much wider focus margin, as compared with conventional photoresists.

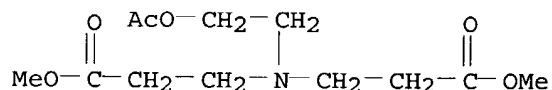
IT 350684-82-1P 350684-83-2P 350684-85-4P  
473714-03-3P 473714-04-4P 473714-05-5P  
473714-06-6P 473714-07-7P 473714-08-8P  
473714-09-9P 473714-10-2P 473714-11-3P  
473714-12-4P 473714-13-5P 473714-14-6P  
473714-15-7P 473714-16-8P 473714-17-9P  
473714-18-0P 473714-19-1P 473714-20-4P  
473714-21-5P 473714-22-6P 473714-23-7P  
473714-24-8P

RL: MOA (Modifier or additive use); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)

(preparation of acrylate-(di)ethanolamine adducts as additives for chemical amplification resists)

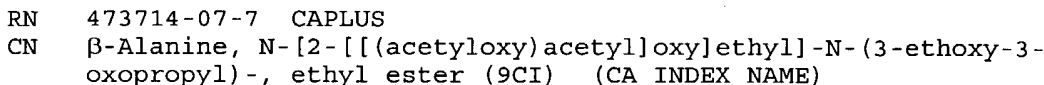
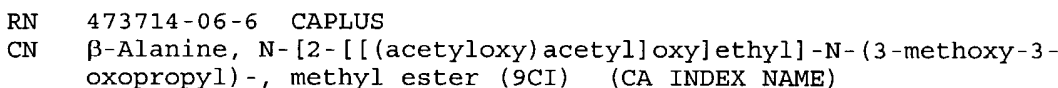
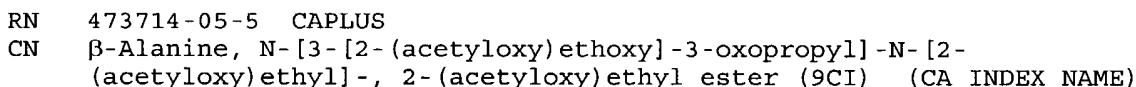
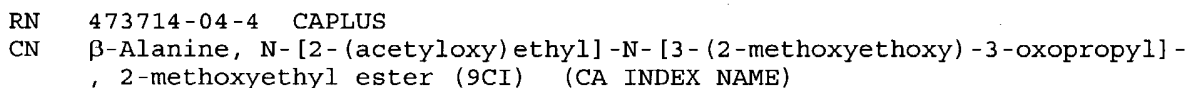
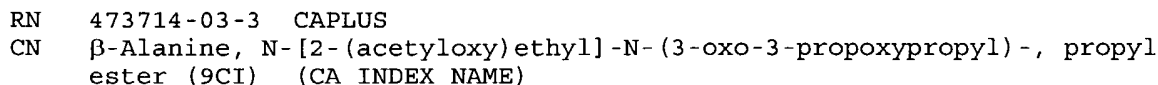
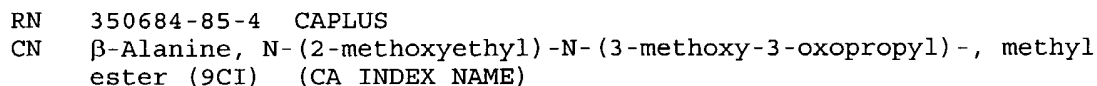
RN 350684-82-1 CAPLUS

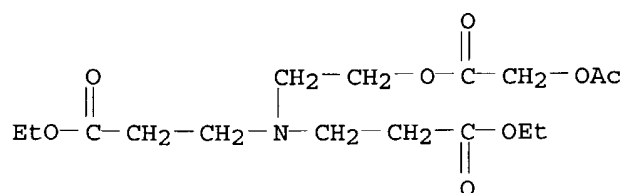
CN β-Alanine, N-[2-(acetyloxy)ethyl]-N-(3-methoxy-3-oxopropyl)-, methyl ester (9CI) (CA INDEX NAME)



RN 350684-83-2 CAPLUS

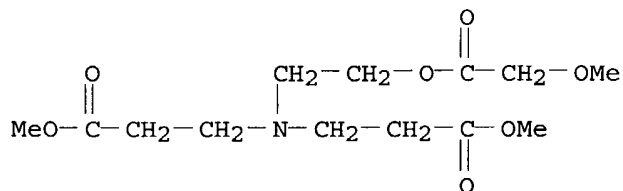
CN β-Alanine, N-[2-(acetyloxy)ethyl]-N-(3-ethoxy-3-oxopropyl)-, ethyl ester (9CI) (CA INDEX NAME)





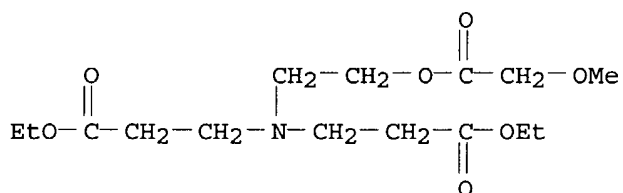
RN 473714-08-8 CAPLUS

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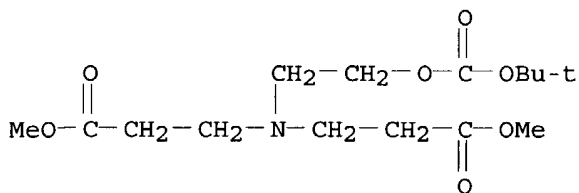
RN 473714-09-9 CAPLUS

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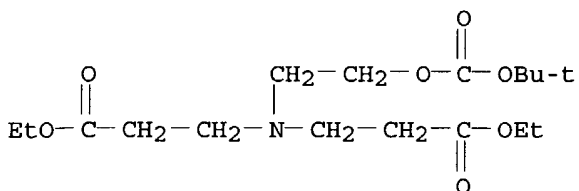
RN 473714-10-2 CAPLUS

CN  $\beta$ -Alanine, N-[2-[[[(1,1-dimethylethoxy)carbonyl]oxy]ethyl]-N-(3-methoxy-3-oxopropyl)-, methyl ester (9CI) (CA INDEX NAME)



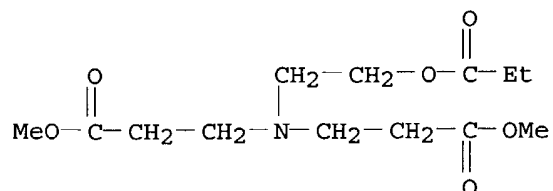
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CN  $\beta$ -Alanine, N-[2-[[[(1,1-dimethylethoxy)carbonyl]oxy]ethyl]-N-(3-ethoxy-3-oxopropyl)-, ethyl ester (9CI) (CA INDEX NAME)



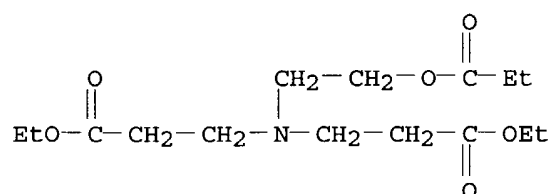
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CN  $\beta$ -Alanine, N-(3-methoxy-3-oxopropyl)-N-[2-(1-oxopropoxy)ethyl]-, methyl ester (9CI) (CA INDEX NAME)



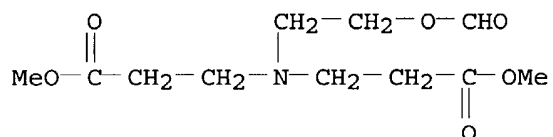
RN 473714-13-5 CAPLUS

CN  $\beta$ -Alanine, N-(3-ethoxy-3-oxopropyl)-N-[2-(1-oxopropoxy)ethyl]-, ethyl ester (9CI) (CA INDEX NAME)



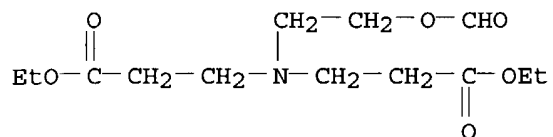
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CN  $\beta$ -Alanine, N-[2-(formyloxy)ethyl]-N-(3-methoxy-3-oxopropyl)-, methyl ester (9CI) (CA INDEX NAME)



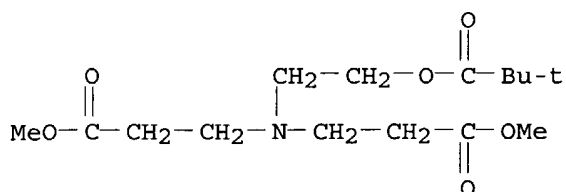
RN 473714-15-7 CAPLUS

CN  $\beta$ -Alanine, N-(3-ethoxy-3-oxopropyl)-N-[2-(formyloxy)ethyl]-, ethyl ester (9CI) (CA INDEX NAME)

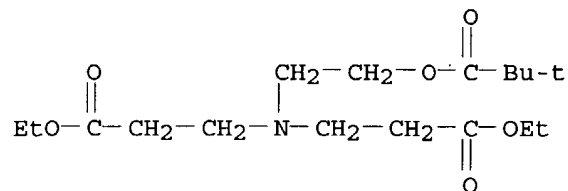


RN 473714-16-8 CAPLUS

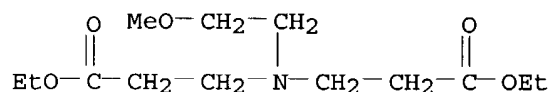
CN  $\beta$ -Alanine, N-[2-(2,2-dimethyl-1-oxopropoxy)ethyl]-N-(3-methoxy-3-oxopropyl)-, methyl ester (9CI) (CA INDEX NAME)



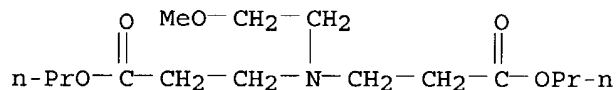
RN 473714-17-9 CAPLUS  
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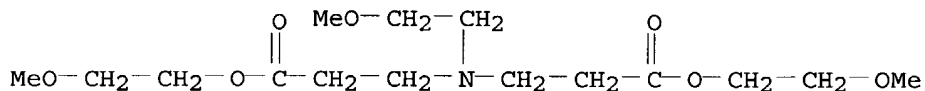
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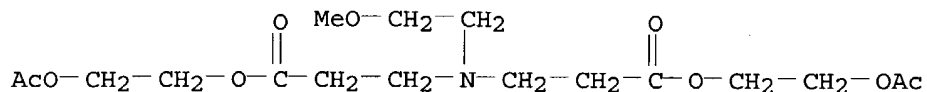
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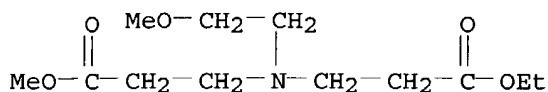
RN 473714-20-4 CAPLUS  
 CN  $\beta$ -Alanine, N-[3-(2-methoxyethoxy)-3-oxopropyl]-N-(2-methoxyethyl)-, 2-methoxyethyl ester (9CI) (CA INDEX NAME)



RN 473714-21-5 CAPLUS  
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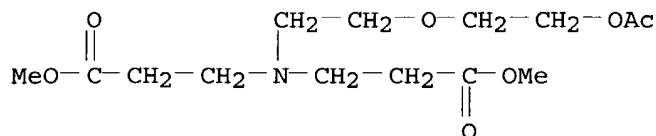


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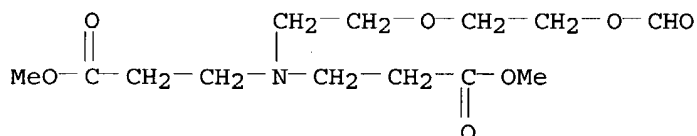




RN 473714-23-7 CAPLUS  
 CN  $\beta$ -Alanine, N-[2-[2-(acetyloxy)ethoxy]ethyl]-N-(3-methoxy-3-oxopropyl)-  
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RN 473714-24-8 CAPLUS  
 CN  $\beta$ -Alanine, N-[2-[2-(formyloxy)ethoxy]ethyl]-N-(3-methoxy-3-oxopropyl)-  
 , methyl ester (9CI) (CA INDEX NAME)



L9 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2004 ACS on STN  
 AN 2001:523645 CAPLUS  
 DN 135:129564  
 TI Chemically amplified **resist composition** containing  
 amine derivative having carbonyl group, ester group, or carbonate group  
 IN Hatakeyama, Jun; Osawa, Yoichi; Watanabe, Takeshi  
 PA Shin-Etsu Chemical Industry Co., Ltd., Japan  
 SO Jpn. Kokai Tokyo Koho, 37 pp.  
 CODEN: JKXXAF

DT Patent  
 LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2001194776	A2	20010719	JP 2000-328131	20001027
	US 6673511	B1	20040106	US 2000-697921	20001027
	US 2004106063	A1	20040603	US 2003-615683	20030709
PRAI	JP 1999-308496	A	19991029		
	US 2000-697921	A3	20001027		

OS MARPAT 135:129564

AB The chemical amplified resist composition contains amine compound N(X)n(Y)3-n  
 (n =

1-3, integer; X = -R1-O-R2-, -R1-C(=O)-O-R61; R1 = C1-5 alkylene; R2 =  
 C1-20 alkyl containing carbonyl or ester group; R61 = carbonyl, ester, ether,  
 etc.; Y = H, C1-20 alkyl). The composition, which contains the aforementioned  
 amine having carbonyl group, ester group, or carbonate group, generates  
 little post exposure delay (PED) problem and provides the good acid  
 diffusion control.

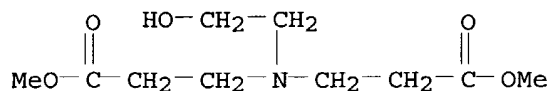
IT 85997-58-6P 87278-81-7P 144576-44-3P  
 350684-82-1P 350684-83-2P 350684-84-3P  
 350684-85-4P

RL: SPN (Synthetic preparation); TEM (Technical or engineered material  
 use); PREP (Preparation); USES (Uses)

(chemical amplified resist composition containing amine having carbonyl  
 group,  
 ester group, or carbonate group)

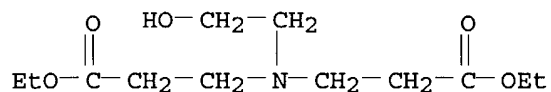
RN 85997-58-6 CAPLUS

CN  $\beta$ -Alanine, N-(2-hydroxyethyl)-N-(3-methoxy-3-oxopropyl)-, methyl  
 ester (9CI) (CA INDEX NAME)



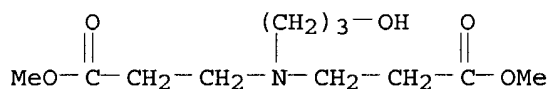
RN 87278-81-7 CAPLUS

CN  $\beta$ -Alanine, N-(3-ethoxy-3-oxopropyl)-N-(2-hydroxyethyl)-, ethyl ester  
(9CI) (CA INDEX NAME)



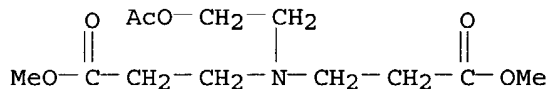
RN 144576-44-3 CAPLUS

CN  $\beta$ -Alanine, N-(3-hydroxypropyl)-N-(3-methoxy-3-oxopropyl)-, methyl ester (9CI) (CA INDEX NAME)



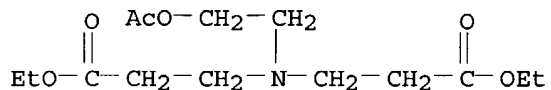
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CN  $\beta$ -Alanine, N-[2-(acetyloxy)ethyl]-N-(3-methoxy-3-oxopropyl)-, methyl ester (9CI) (CA INDEX NAME)



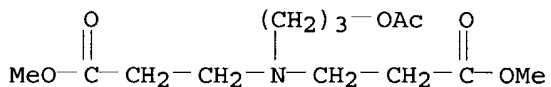
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CN  $\beta$ -Alanine, N-[2-(acetyloxy)ethyl]-N-(3-ethoxy-3-oxopropyl)-, ethyl ester (9CI) (CA INDEX NAME)



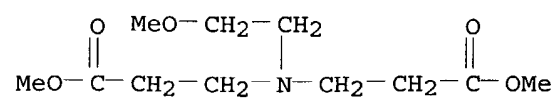
RN 350684-84-3 CAPLUS

CN  $\beta$ -Alanine, N-[3-(acetyloxy)propyl]-N-(3-methoxy-3-oxopropyl)-, methyl ester (9CI) (CA INDEX NAME)



RN 350684-85-4 CAPLUS

CN  $\beta$ -Alanine, N-(2-methoxyethyl)-N-(3-methoxy-3-oxopropyl)-, methyl ester (9CI) (CA INDEX NAME)



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